

teleutospores, in that the teleutospores germinate at maturity in the living host, and the epispore of the teleutospores is smooth. Dr. J. C. Arthur, to whom specimens were sent, seems to think that it may be the same as an unpublished species occurring in Maine, and named by Mr. P. L. Ricker.

The rust is so little known that it has been considered worth while to describe it, even though it may be the same as the one named by Ricker, in order that those who are interested in this group of fungi may be on the look-out for it during the spring and summer of 1907. The following description has been prepared from freshly collected material. The color of the sori is much darker on dried specimens of *Sisyrinchium*.

*Uredosori*. — Spots yellow or none. Sori single or in rows, amphigenous, pulverulent, orange-yellow, surrounded by the ruptured epidermis, elliptical to linear; uredospores orange-yellow, broadly ovate to subspherical, echinulate,  $11.5-13\mu \times 8-10\mu$ .

*Teleutosori*. — Single or in rows, amphigenous, pulvinate, orange, becoming brown, somewhat gelatinous; teleutospores accompanying or following the uredospores, which they resemble in color, elliptical to oblong, apex tapered and thickened, base narrowed,  $16-19\mu \times 8-9\mu$ , epispore and pedicel subhyaline; pedicel much longer than the spore, up to  $50\mu$ ; teleutospores germinating in the living host.

Occurring on *Sisyrinchium graninoides* Bick. at Morgantown, West Virginia.

WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION,  
MORGANTOWN, W. VA.,  
November 1, 1906.

## REVIEWS.

### **Postelsia, The Year Book of the Minnesota Seaside Station.\***

This is in reality volume 2 of a series of papers under the name *Postelsia*, the first volume of which appeared in 1902. But, unfortunately, the convenient form of citation "*Postelsia* 2:" or "*Postelsia*, vol. 2" can not be used with technical accuracy in referring to the present work, as no volume number is to be

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found on title-page, cover, or folio-headings, and it is only from the "Word of Introduction" by Professor Conway MacMillan and from an advertising circular that one may infer that no "Year Book" was published in 1903, 1904, and 1905, and that the present volume constitutes the second of the series. This volume, like the earlier, contains seven essays, the first of which is by C. O. Rosendahl and is entitled "Observations on Plant Distribution in Renfrew District of Vancouver Island." The rainfall at Port Renfrew in 1902 was 300 cm. and the author estimates that 275 cm. may not be far from the yearly average, indicating that "the place is one of the rainiest in temperate North America." The great amount of rain, combined with the mildness of the winters, induces a luxuriant vegetation and one of much biological interest. The plant associations are first discussed under three general heads: I. Marine formations; II. Formations of the beach; III. Formations of the forest country; then follows a list, including 18 species of Pteridophyta, 10 species of Gymnospermae and 222 species of Angiospermae (79 monocotyledons and 143 dicotyledons). The author summarizes the main conclusions drawn from the study as follows: (a) "That the pteridophytic flora is poor in number of species for a region showing almost tropical conditions as regards moisture, yet shows great density and profusion;" (b) "That the gymnospermous flora forms the all-important group and constitutes the great mass of the island vegetation"; (c) "That of the two classes of angiosperms the monocotyledons occupy a more important position than the dicotyledons. \* \* \*

In conclusion, it can be said in general that the flora of Vancouver Island, in so far as it can be judged by observations confined to a limited area of the same, is typically boreal, with an admixture of more arctic forms than the latitude, the elevation above sea-level, and present climatic conditions would indicate." Some errors in writing or proof-reading, such as "*Plantago macrocarpum*," "*Stachys ciliatus*," "*Monotropa hypopytis*," and "*Boschniakia strobilaceae*," and certain peculiarities in bibliographic citation detract a little from the literary merits of Dr. Rosendahl's interesting paper.

The second essay is on "The Conifers of Vancouver Island"

and is written by Fred K. Butters. It is based on observations made in the dense coniferous forests of that region during four summers spent in the vicinity of the Minnesota Seaside Station. Thirteen species of conifers are known to occur spontaneously on the island, none of them being endemic. The author discusses their distribution and associations, and adds technical descriptions of families, genera, and species, and keys to the genera. A peculiarity of the taxonomy is that the genus *Abies* is taken in the broad ancient sense of Tournefort and Adanson and includes the *Picea*, *Tsuga*, and *Pseudotsuga* of nearly all modern writers. The relationships of these groups are so complicated that their recognition as genera is considered unsatisfactory.

The third paper is by Alexander W. Evans and is on the "Hepaticae of Vancouver Island." The first Hepaticae known from the island appear to have been those collected by Dr. David Lyall in 1858 and 1859. Later, important collections were made at three different times by Professor John Macoun and smaller ones by Dr. G. W. Dawson, Professor William Trelease, and Mr. J. M. Macoun, and in the summers of 1901, 1902, and 1903, further collections were secured in the vicinity of the Seaside Station at Port Renfrew by Miss Gertrude Gibbs, Mr. S. A. Skinner, and Miss Daisy Hone, respectively. These last-named collections were studied by Professor Evans and included two species elsewhere described as new under the names *Odontschisma Gibbsiae* and *Scapania americana*. The list which the author now gives embraces seventy-one species, this being an increase of fourteen over the number recognized for Vancouver Island in Macoun's "Catalogue of Canadian Plants," after making allowances for some necessary revisions in Macoun's list.

The fourth paper of the series is on "Some Western Helvel-lineae," by D. S. Hone. This is based on specimens collected in the western United States and Canada during various expeditions to the Minnesota Seaside Station. Seven species are mentioned and described, representing the genera *Spathularia*, *Mitrulea*, *Cudonia*, *Rhizinia*, *Helvella*, and *Gyromitra*, none of the species being regarded as new.

"*Renfrewia parvula*, a new Kelp from Vancouver Island," by Robert F. Griggs, is the title of the fifth paper. The proposed new genus *Renfrewia* is distinguished from *Laminaria* by its simple discoid holdfast without hapteres, from *Cymathere* in its unfolded lamina, and from *Phyllaria* in the absence of cryptostomata. The type-species, *Renfrewia parvula*, is considered to be one of the most primitive of kelps. Two previously described species, *Laminaria solidungula* J. Ag. and *Laminaria yessoensis* Miyabé, are referred to the new genus.

"A Study of Tide-pools on the West Coast of Vancouver Island," by Isabel Henkel, the sixth essay, is written chiefly from the standpoint of dynamic geology, with some reference to the plant and animal life of the different types of pools and the conditions affecting the existence of life in such places.

The volume closes with a paper by Professor C. W. Hall on "Some Geological Features of the Minnesota Seaside Station," in which the geological formations of Port Renfrew and vicinity are described. The prevailing rock in the neighborhood of the Station is a hard dark shale, but mountains of granite occur west of Port Renfrew Bay. There are evidences of local glaciation but scarcely any that the region, as a whole, has been covered by a general ice-sheet.

The present volume of *Postelsia*, like its predecessor, is printed on wide-margined, enameled paper, and is illustrated by numerous half-tones from good photographs. It will not only form a pleasant souvenir to those who know the Vancouver coast and the Minnesota Seaside Station, but is also a dignified contribution to American botanical literature.

MARSHALL A. HOWE.

## PROCEEDINGS OF THE CLUB

OCTOBER 9, 1906

The first regular fall meeting of the club was announced to be held at the American Museum of Natural History, at 8:15 p. m. The day and evening were stormy, and only four members were present. The meeting was not called to order.

C. STUART GAGER,  
Secretary.